Key Principle 1.5 – Process for Deploying Ancillary Services

To implement RTC, certain processes for deploying Ancillary Services (AS) will need to be modified to accommodate AS awards in Real-Time.

# Principle Concepts

# *Approved Principle Concepts*

None

#  *Principle Concepts for Voting*

1. The AS manager application will be modified to obtain Resource-specific AS responsibility/award information as an output from RTC (i.e., it will no longer be driven by Real-Time telemetry and Current Operating Plan (COP) information provided by Qualified Scheduling Entities (QSEs)).
2. Under the current process, energy for immediate dispatch and Locational Marginal Prices (LMPs) from Security-Constrained Economic Dispatch (SCED) are binding; this process will remain in place with RTC. Thus, RTC awards for AS products, energy, dispatch, and their respective prices (e.g., LMPs, Market Clearing Prices for Capacity (MCPCs)) will be immediately binding as applicable to various AS products (e.g., Regulation Up Service (Reg-Up) and Regulation Down Service (Reg-Down)).
3. Regulation Service instructions from ERCOT will become Resource specific (i.e., no longer QSE portfolio level; participation factors will be removed).
4. Load Frequency Control (LFC) will be modified to address more frequent awards of Regulation Service to qualified Resources; upon the receipt of new Base Points and AS awards from RTC, LFC will reset Regulation Service instructions to zero.
5. Updated Desired Base Points (UDBP) will be replaced by Updated Desired Set Point (UDSP)—UDSP is a single value that is the sum of two components: Base Ramp, and Resource-specific Regulation Service instruction. Base Ramp is a four minute ramp similar to UDBP, except that the starting point of the Base Ramp is the expected output of the Resource using the previous Base Point and the last Resource-specific Regulation instruction from LFC before new Base Points were input to LFC (i.e., the expected output based on these two components). For Resources that are not providing Regulation Service, the Regulation instruction component is 0. LFC then determines the Resource-specific instruction and adds it to the Base Ramp. LFC sends UDSP every four seconds until RTC results become available.
6. The calculated system level regulation requirement will be distributed as Regulation Service Instructions to each Resource proportionate to their Regulation Service awards. Issued Resource-specific Regulation Service instructions will respect Resource limits (i.e., HSL,LSL, and ramp rates) by considering UDSP and Resource-specific Regulation Service instructions. Remaining un-deployed system level regulation will be distributed to Resources with Regulation Service awards that have un-deployed Regulation Service award capacity.

Note: For non-consensus items, opposing key principle or principle concept language would be provided in this form to TAC for their review.

# *Future Decision Points and Issues for Developing Principle Concepts*

Functionality and Process Concepts

1. LFC – Process of deploying RRS
2. Telemetry changes necessary to accommodate LFC and AS manager changes
3. Impact of AS Demand Curves (ASDCs)
4. Removal of the existing process for QSEs to update telemetered AS schedules following manual deployment for Generation Resources and Controllable Load Resources
5. Elimination of Non-Spinning Reserve (Non-Spin) offer floor
6. Continued ability of RTC to be executed off-cycle, between regularly scheduled five-minute executions.
7. RTC failure process

# Applicable Protocol Sections

*Placeholder*